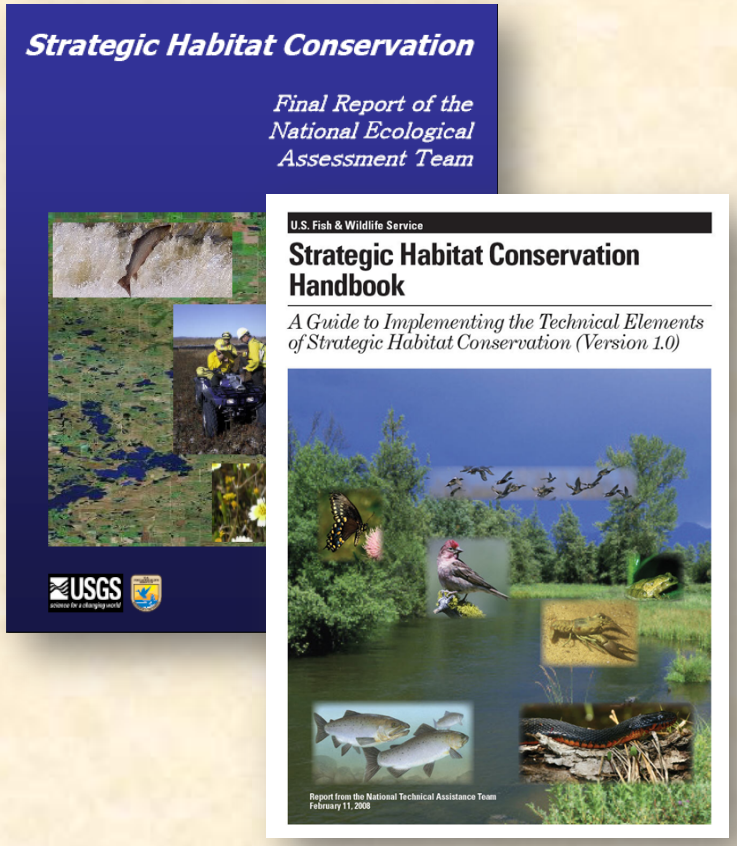
U.S. Fish &Wildlife Service Business Model: Strategic Habitat Conservation



Presented By:

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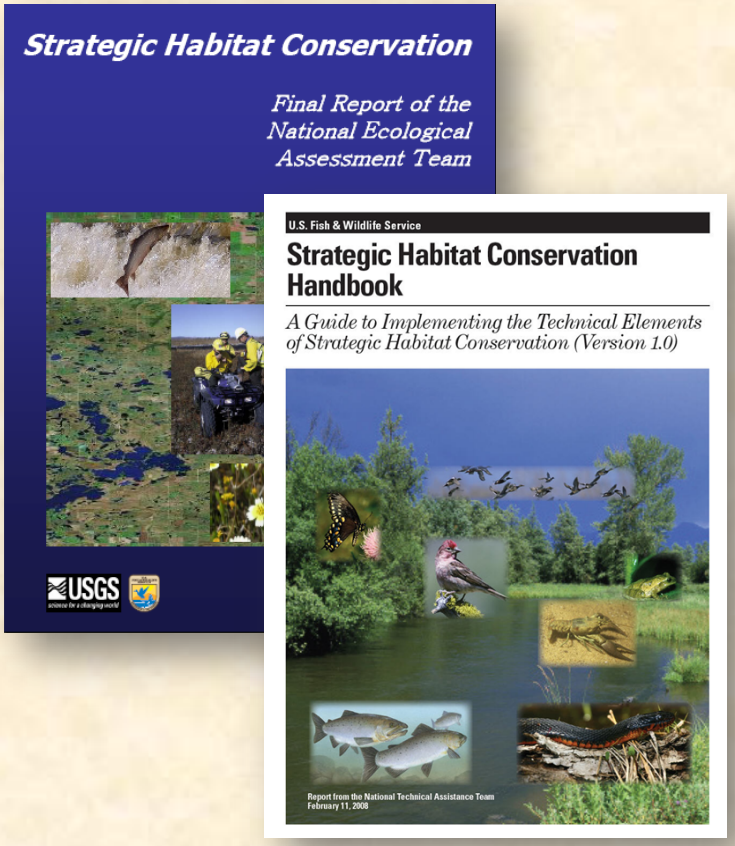
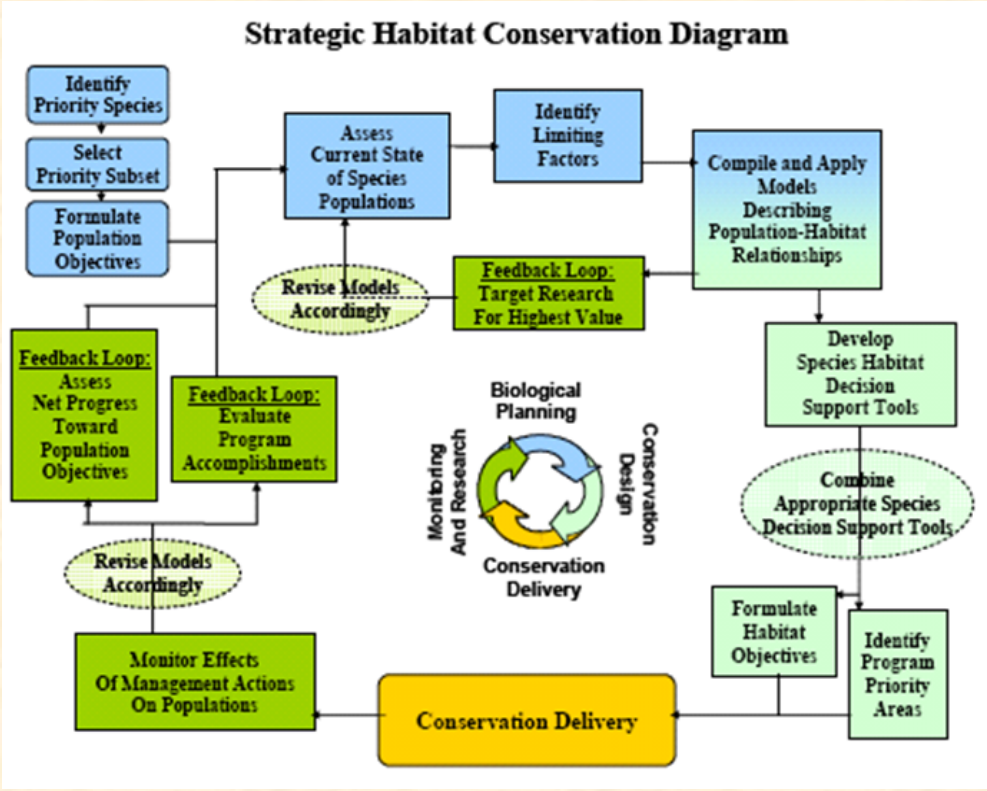
Strategic Habitat Conservation - Framework





The Business Model Concept…

The vehicle for defining the underlying, otherwise unstated, assumptions and core beliefs that when articulated explain to audiences:

- Why a business exists;
- The value-added services and products it seeks to provide;
- How it seeks to position itself in the external marketplace; and
- The operational principles and framework upon which its human and capital resources are arrayed and allocated.

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FWS Mission: Working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

SHC Conservation Objective: Characterize and maintain functional landscapes capable of supporting self-sustaining fish, wildlife, and plant populations.

The Business Model Concept…

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- The value-added services and products it seeks to provide;

What are the services and products the Service is "selling"?

SHC requires and facilitates…

- Transparent, defensible population and habitat objectives
- Landscape assessments
- Decision support tools

The Business Model Concept…

The vehicle for defining the underlying, otherwise unstated, assumptions and core beliefs that when articulated explain to audiences:

- How it seeks to position itself in the external marketplace; and

How does the Service position itself within the conservation community and respond to public comments?

SHC provides both the structure and function to engage partners, as well as, society.

The Business Model Concept…

The vehicle for defining the underlying, otherwise unstated, assumptions and core beliefs that when articulated explain to audiences:

- The operational principles and framework upon which its human and capital resources are arrayed and allocated.

How does the Service allocate human and capital resources?

SHC framework facilitates decision making processes by clearly articulating products and services required to achieve the conservation objective of sustainable landscapes for fish and wildlife.

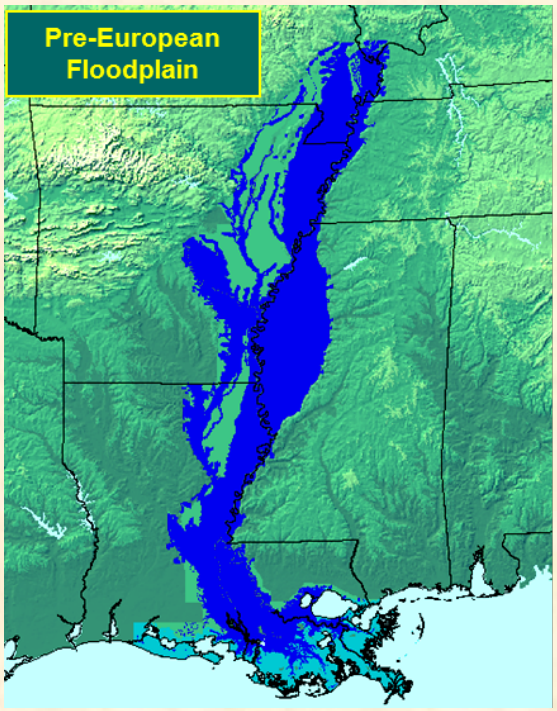
The Business Model Concept…

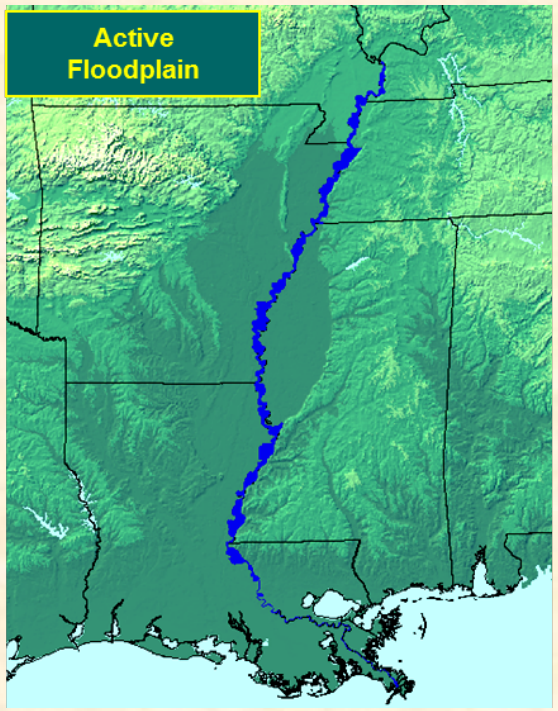
If effective, a business model will respond to one of the principle tenets of management theory…adapting to change.

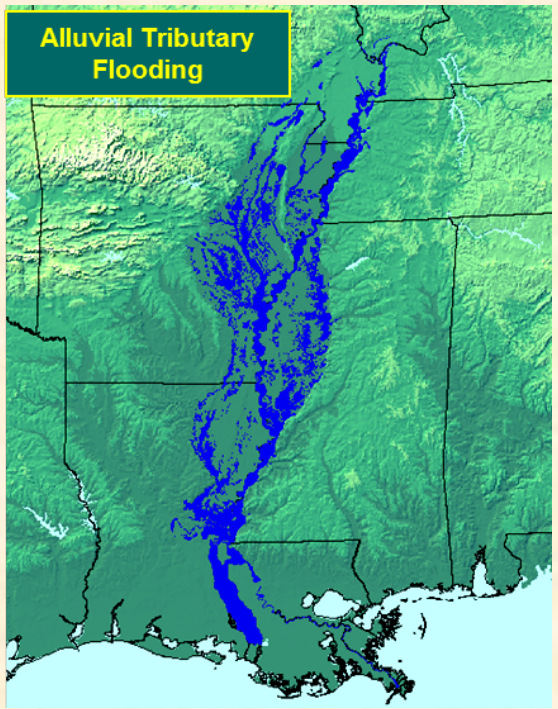
Many businesses fail or decline because the assumptions that underlie their decisions (about society, markets, customers, products, technology, and mission) are made obsolete, invalid, or irrelevant by a constantly changing business environment.

Keeping Pace with Perpetual Change

Ecological Setting – Aquatic Systems

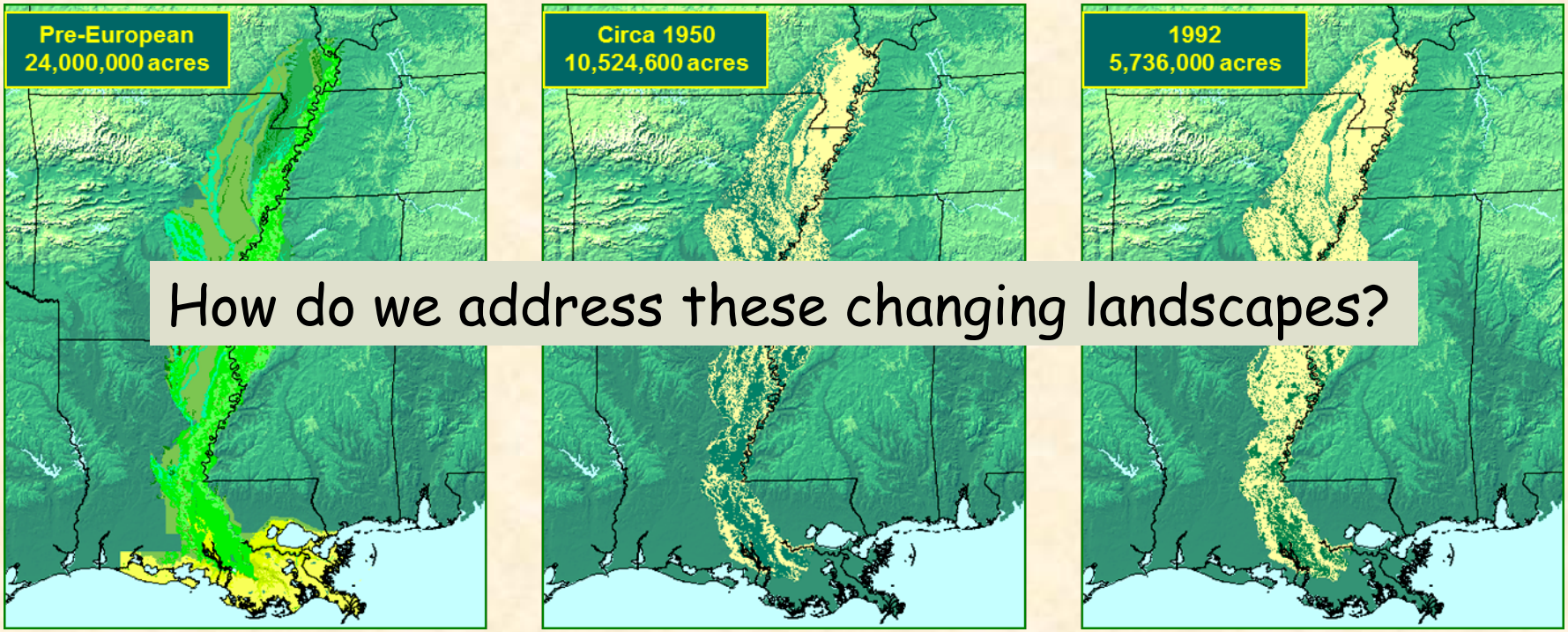






Keeping Pace with Perpetual Change

Ecological Setting – Terrestrial Systems

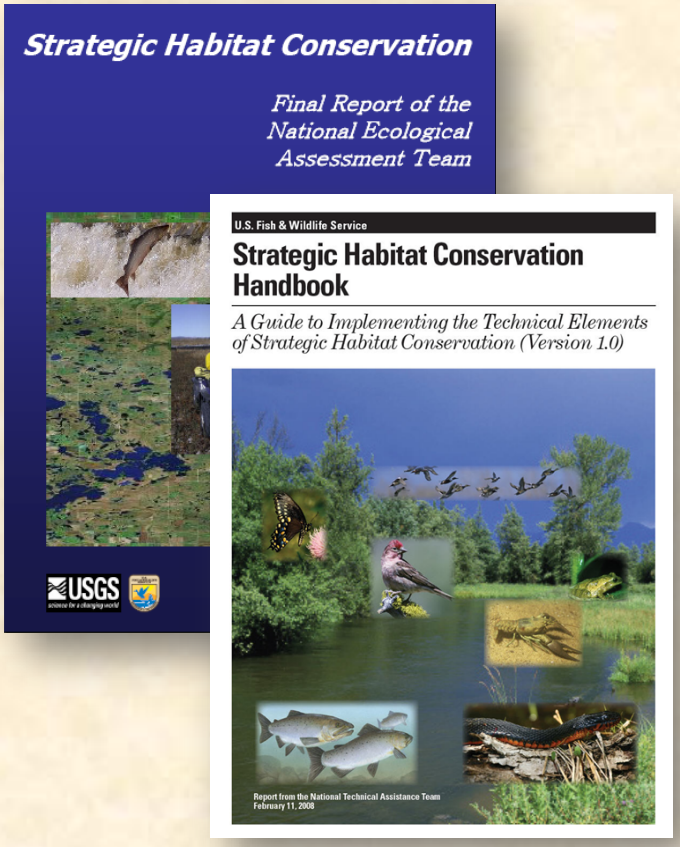


How do we address these changing landscapes?

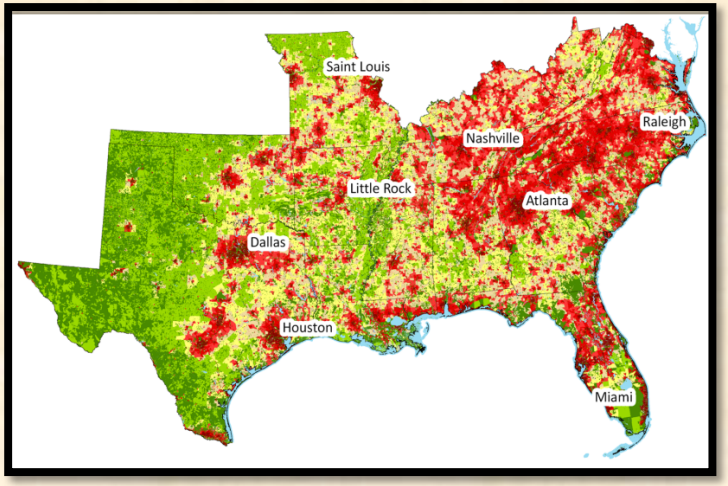
Keeping Pace with Perpetual Change

- ✓ Advancements in Science
  - Landscape Ecology
  - Conservation Biology
- ✓ Advancements in Geospatial Technologies
  - Geographic Information Systems (GIS)
  - Remote Sensing
- ✓ Increasing Emphasis on Accountability
  - Biological
  - Fiscal
- ✓ Global Economy

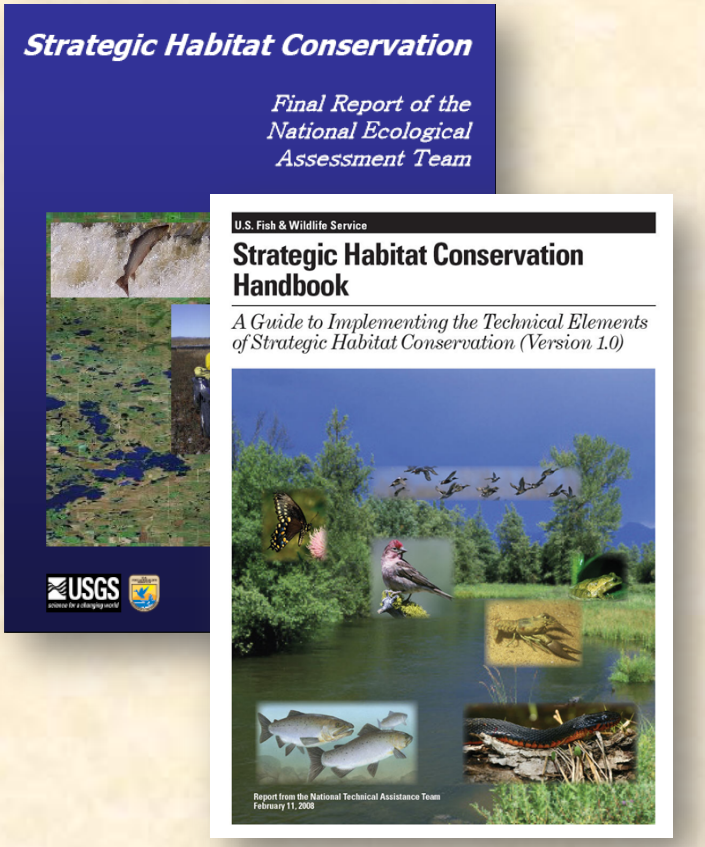
Strategic Habitat Conservation



A transparent approach to meeting conservation challenges of the 21st Century

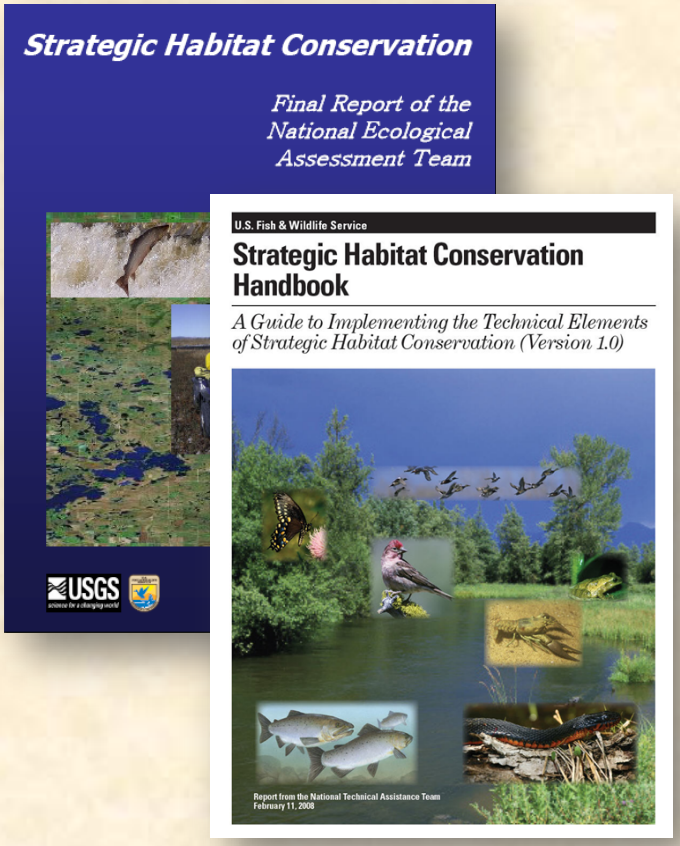


Strategic Habitat Conservation - Defined



"An iterative process of developing and refining a conservation strategy, making efficient management decisions, and using research and monitoring to assess accomplishments and inform future iterations of the conservation strategy"

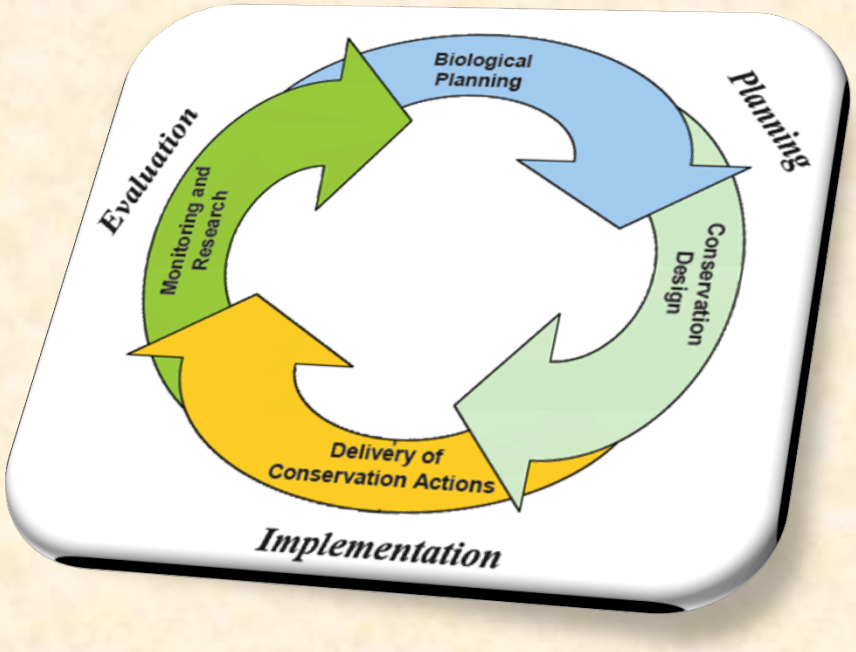
Fundamental Tenants of Strategic Habitat Conservation



- Science: learning becomes an explicit objective
- Conservation Targets: how much? how much more? and where?
- Landscapes: addressing the challenges of scale
- Inter-dependence: collaboration

Fundamental Tenants of Strategic Habitat Conservation

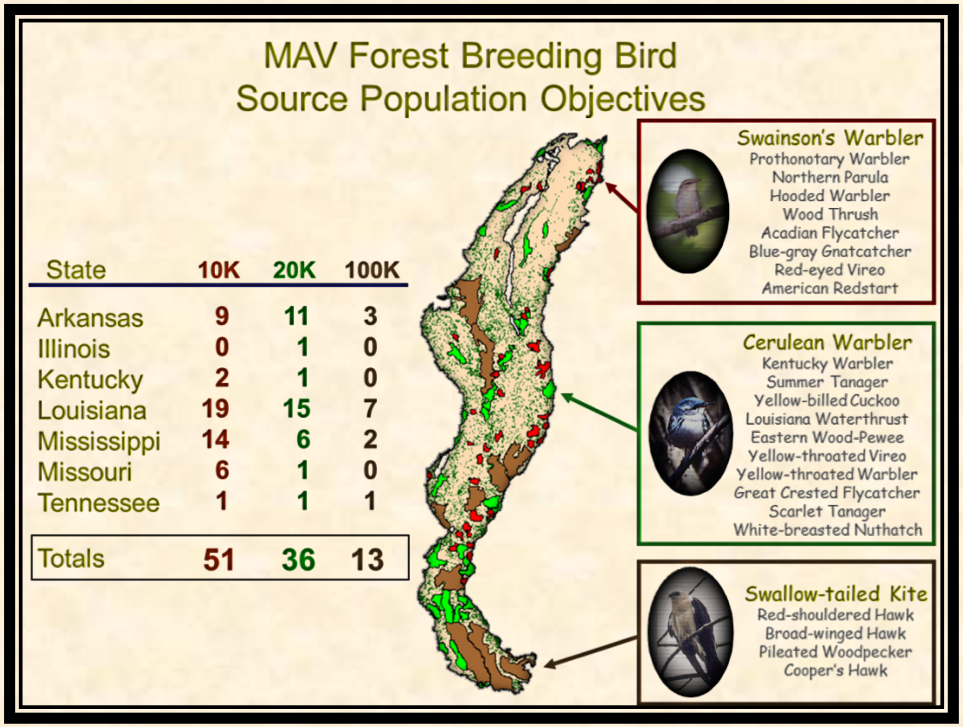
- ✓ **Science:** As a body of knowledge and as a method of discovery: learning becomes an explicit objective of management



Rooted on the principles of Adaptive Management

Fundamental Tenants of Strategic Habitat Conservation

- ✓ **Conservation Target:** Landscapes that can sustain populations of fish and wildlife resources – how much habitat and where?



Fundamental Tenants of Strategic Habitat Conservation

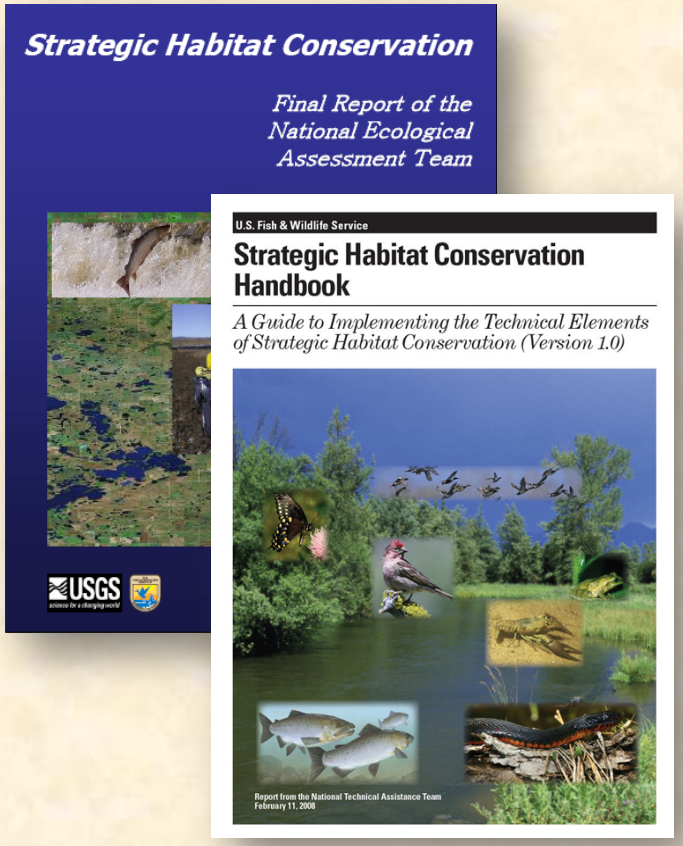
- ✓ **Landscape:** Land management occurs at the site scale; yet ecological outcomes are system dependent, operating on processes manifested at broader spatial and temporal scales.

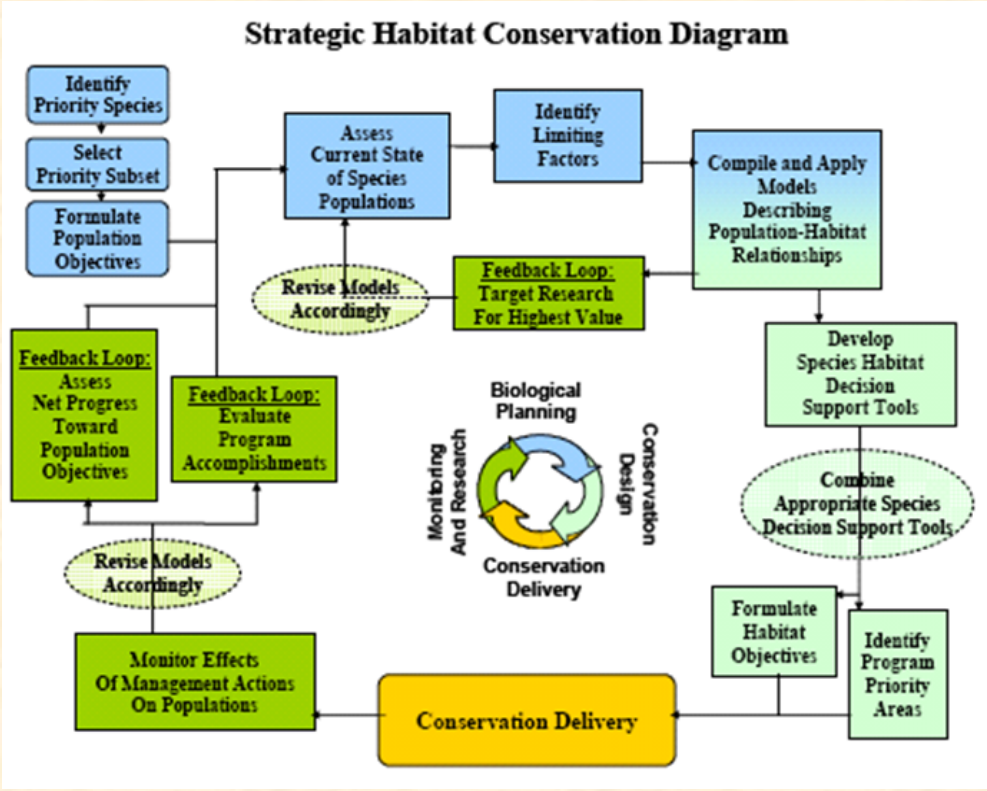
Climate scenario	Forest management scenario			
	Current management	No harvest	Even-aged 10%	Uneven-aged 10%
Current Climate (1980-2003)	☑	☑	☑	☑
Low-range: PCM-B1	☑	☑	☑	☑
Mid-range: GFDL-A1fi	☑	☑	☑	☑
High-range: Hadley-A1Fi	☑	☑	☑	☑

Fundamental Tenants of Strategic Habitat Conservation

- ✓ **Inter-dependence:** Goals and objectives of functional landscapes to sustain fish and wildlife exceed the operational reach of individual programs, agencies, and organizations

Strategic Habitat Conservation - Framework





GCPOLCC Operational Compass: Sustaining Natural and Cultural Resources Through Science, Technology and Partnerships

SHC Element	Sub-element/Product	Birds	Mammals	Reptiles	Amphibia	Fish	Insects	Crustacea	Mollusks	Plants	Cultures
Biological Planning	Biological Planning Unit										
	Priority Species										
	Population Objectives										
	Limiting Factors										
	Species/Habitat Models										
Conservation Design	Landscape/Habitat Assessment										
	Assessment of Conservation Estate										
	Decision Support Tools										
	Habitat Objectives										
	Integrate Multiple Species Objectives										
Delivery (Action)	Conservation Treatments										
	Program Objectives										
Outcome-based Monitoring	Conservation Tracking System										
	Habitat Inventory and Monitoring Program										
	Population Monitoring Program										
Assumption-driven Research	Species/Habitat Model Assumptions										
	Conservation Treatment Assumptions										
	Keyfactor/Sensitivity Analyses										
	Spatial Data Analyses										

Presumptions Underlying SHC Framework

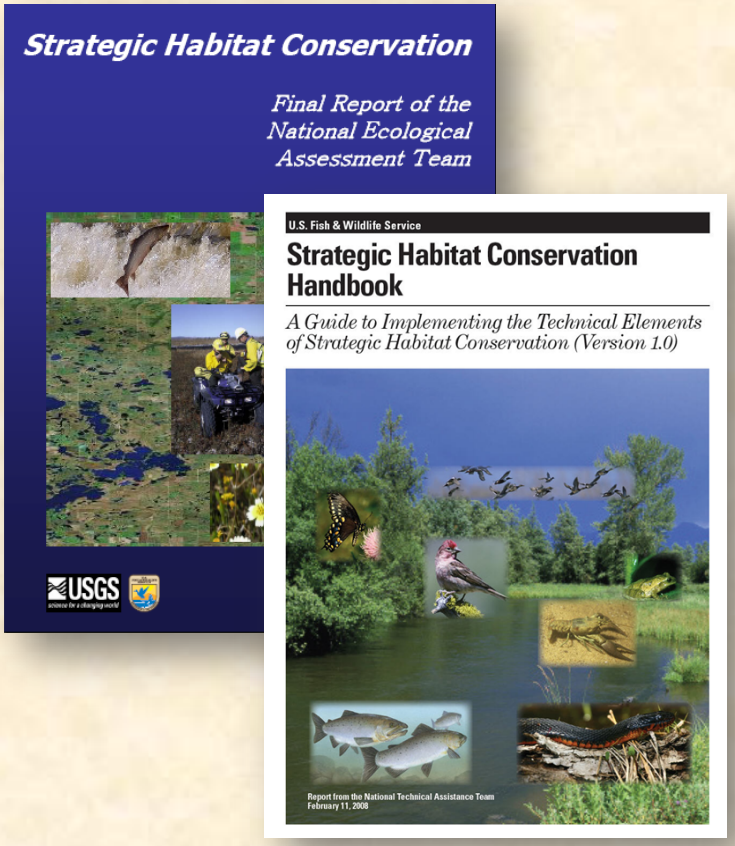
1. Lack full understanding of all aspects of applying the SHC Framework but expect this understanding to grow in proportion to the number of people applying it conservation decisions.

2. No single (FWS) office is likely to apply all elements of the SHC Framework. Instead, implementation of the full framework will require a Service-wide commitment that will benefit from integration of Program Offices.

3. The future of conservation hinges on a landscape approach and our success will rise and fall with how well we integrate our efforts with our Federal, State, and NGO partners.

Strategic Habitat Conservation Handbook

Strategic Habitat Conservation

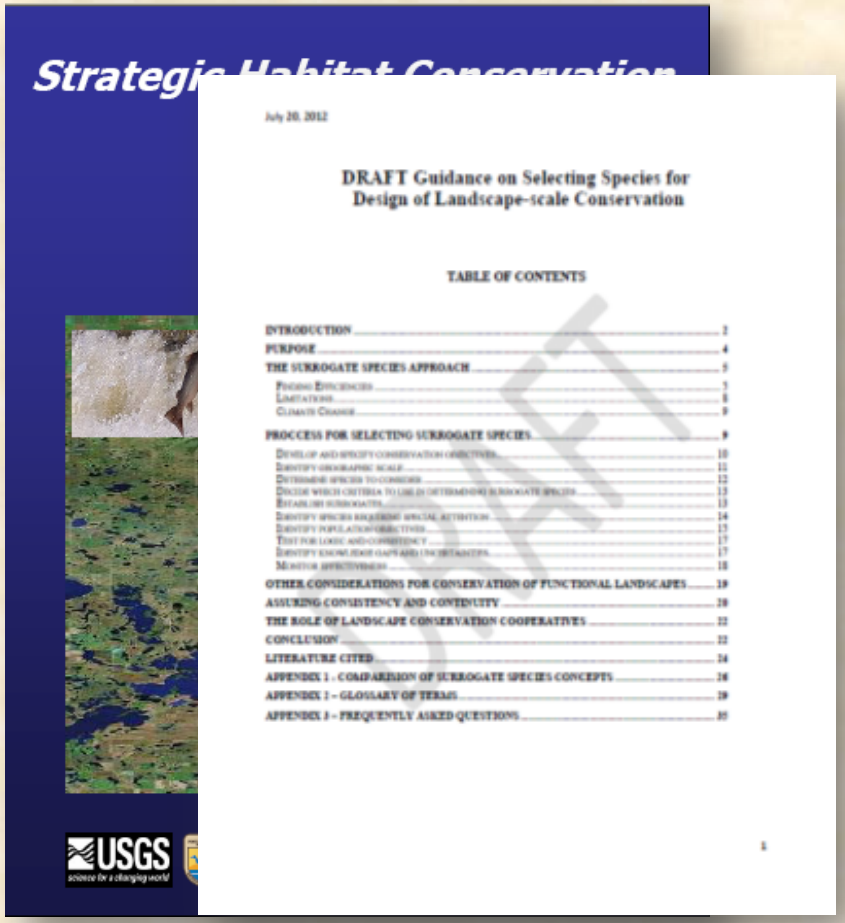


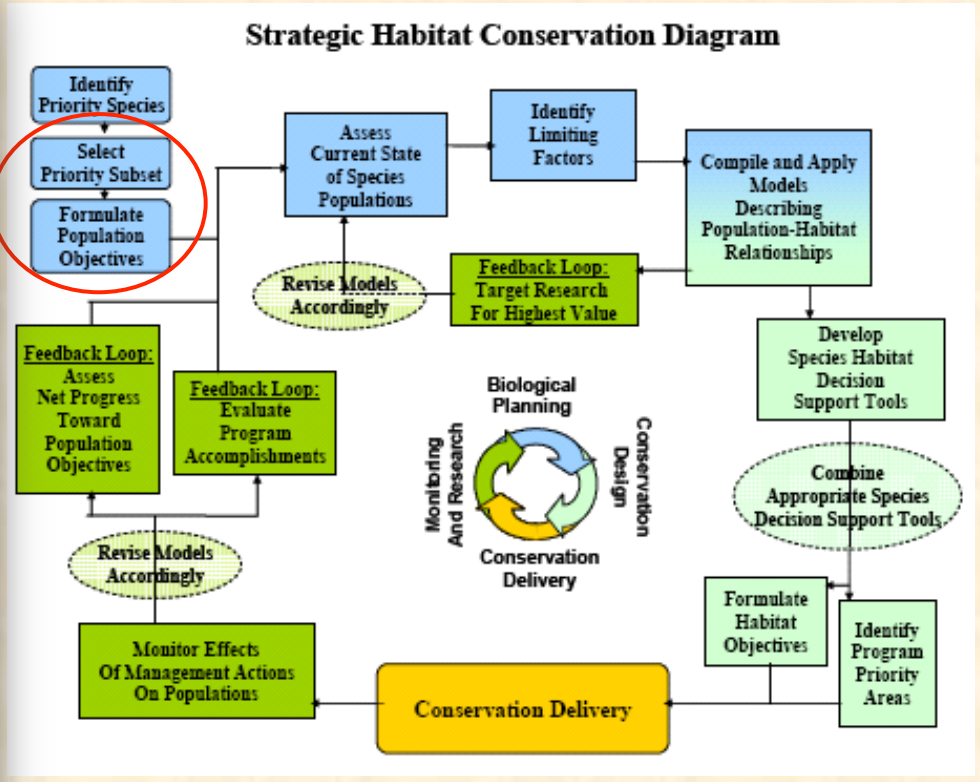
In conclusion…

SHC is an iterative process for defining and refining a conservation strategy based upon the principles of adaptive management.

Furthermore, SHC is a business model for clearly articulating objectives and management strategies to facilitate intra- and inter-agency cooperation in an ever changing environment.

Implementation of SHC:
Selection of Surrogate Species





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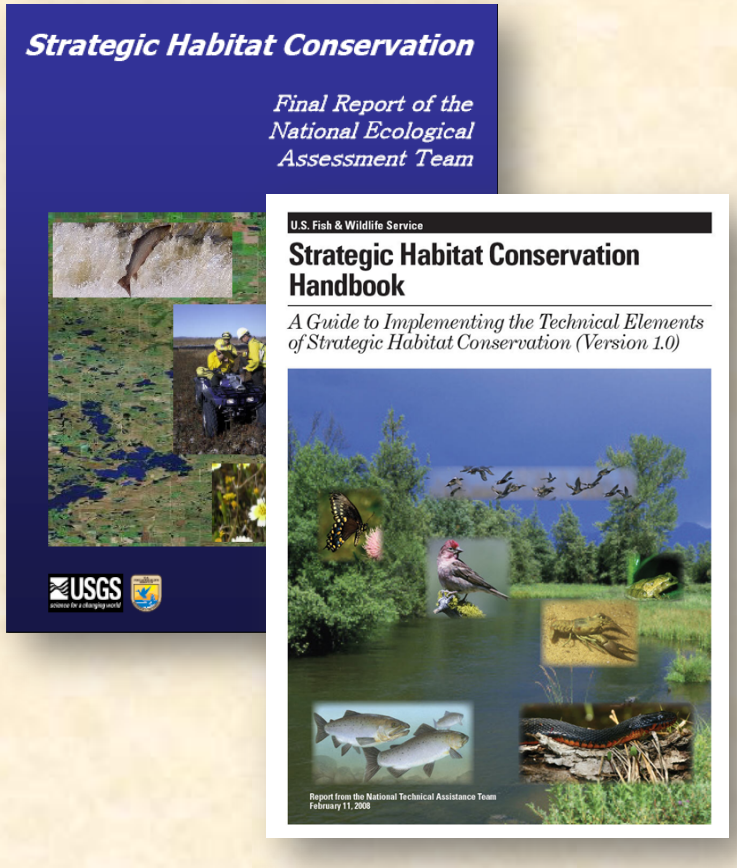

Thanks for Your Attention!

Questions?

Implementation of SHC:
Identification of the Conservation Objective

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Conservation Objective: Characterize and maintain functional landscapes capable of supporting self-sustaining fish, wildlife, and plant populations.

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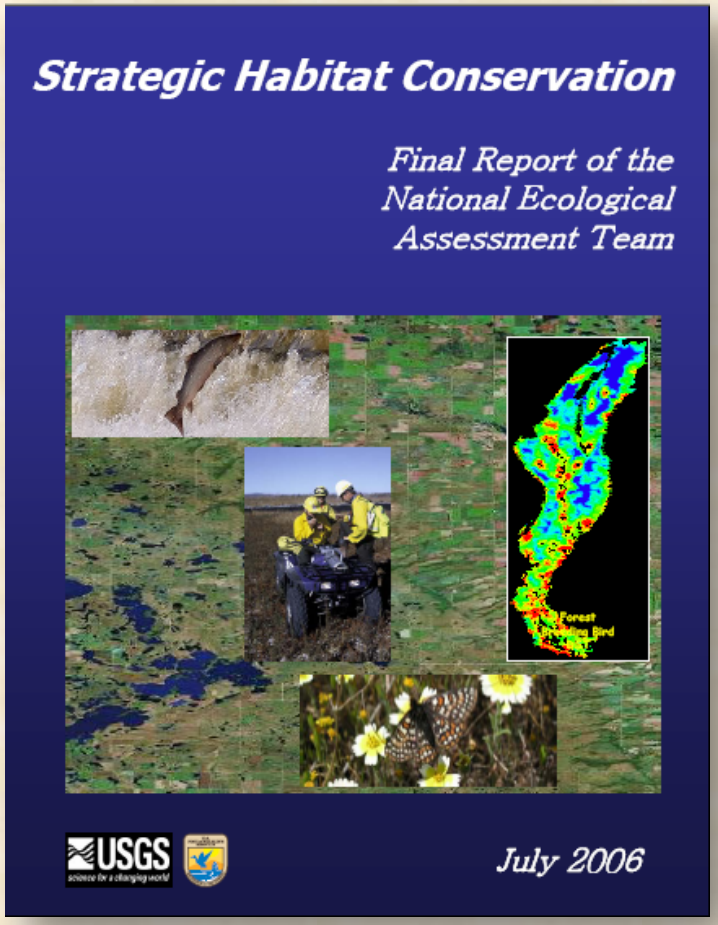
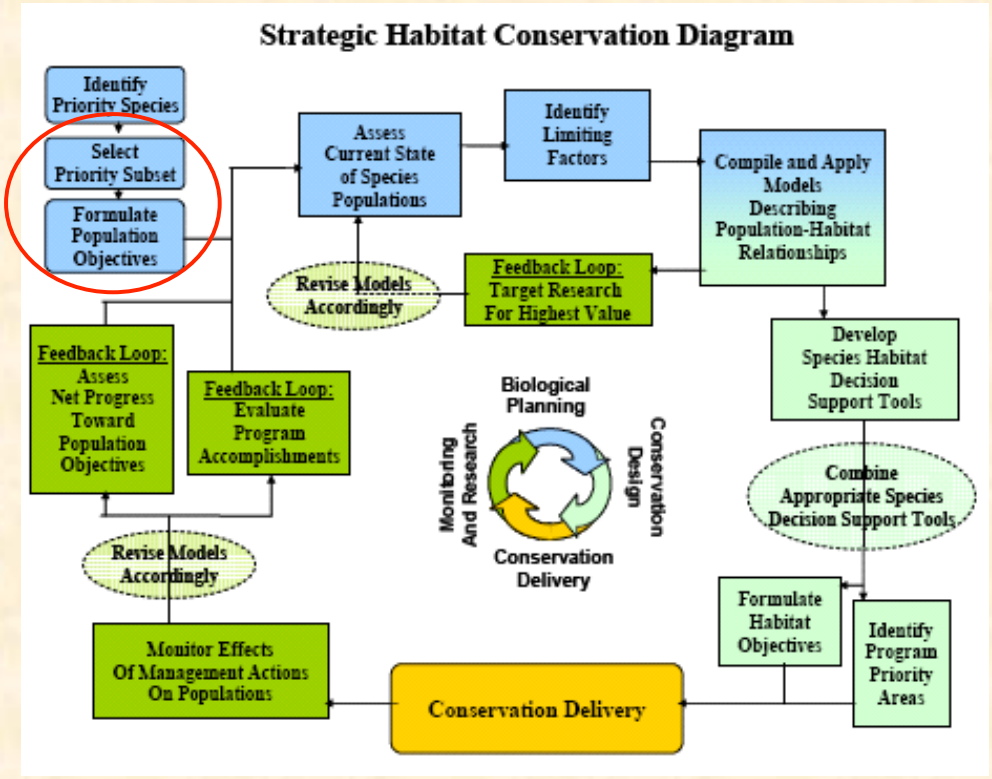
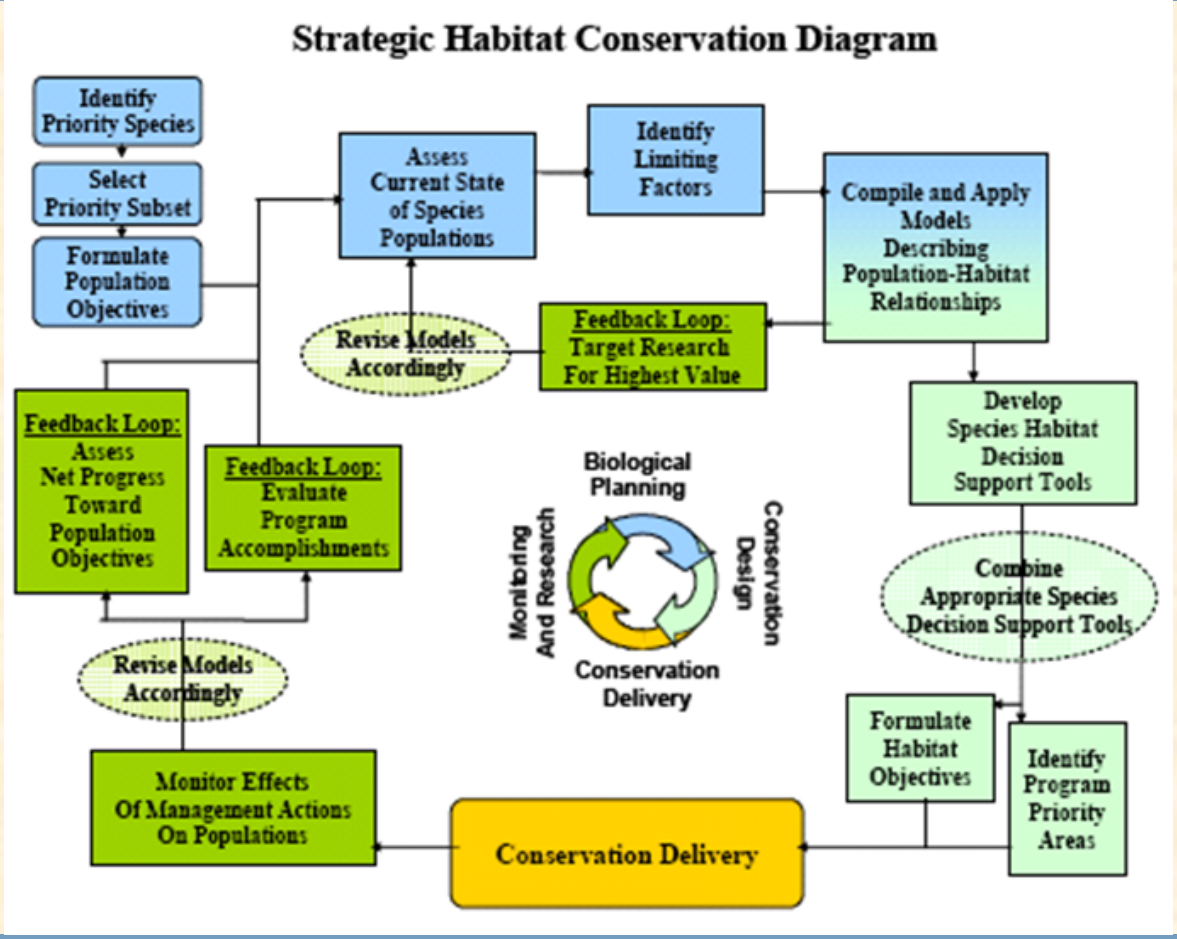




Strategic Habitat Conservation - Framework



Keeping Pace with Perpetual Change